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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|---------------------|
| 10/676,024 | 10/02/2003 | Keiji Kuroda | 514.43149X00 | 6452 |
| 20457 | 7590 | 06/17/2004 | EXAMINER | |
| ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889 | | | | TSUKERMAN, LARISA Z |
| | | ART UNIT | | PAPER NUMBER |
| | | 2833 | | |

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|----------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/676,024 | KURODA ET AL. <i>pr</i> | |
| | Examiner | Art Unit | |
| | Larisa Z Tsukerman | 2833 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 October 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) 4 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 02 October 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 3 is objected to because of the following informalities: entire line 3 should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted Prior Art in view of Oda et al. (5108309).

In regard to claim 1, Applicant's admitted Prior Art discloses (see pages 1-2 of Specification) an electric connector composed of a female connector and a male connector engageable therewith,

the female connector being of a depressed shape,

the male connector having a cavity with a front opening for reception of the female connector being fitted in the male connector,

an insulated housing as the principal part of the female connector having compartments formed side by side to discretely accommodate there- in socket contacts each lying on its side and secured on a wire end,

a lance formed integral with each socket contact and facing sideways so as to be latched by a lug formed in the compartment and protruding from an inner wall surface thereof,

a further insulated housing also serving as the principal part of the male connector and having the cavity formed therein,

the further insulated housing further having compartments that hold therein male contacts capable of fitting in the respective socket contacts and establishing electrical connection therewith; and

the male housing is designed to cover and the upper and lower walls of the female housing, as the female housing is inserted into the cavity of the male housing.

However, Applicant's admitted Prior Art does not include peep - holes formed in one of upper and lower walls of the female housing, such that the lugs engaging with the respective lances are exposed to the outside within the peep - holes. Oda et al. teach a hole (window) 30/31 provide on the wall to visually confirm if the socket terminal (see Fig. 6) engaging with the respective lances 14 are exposed to the outside within the peep - holes 30 (to verify if the locking member 14' is visible and the electrical socket contact 25' is properly position in the housing 11), (see Coll.2, lines 15-20 and 60-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and **for the same reason** to include a window 30/31 of Oda et al. in the Applicant's admitted Prior Art structure.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant

Prior Art in view of Oda et al. (5108309) as applied to claim 1 above, and further in view of Wu (6224408).

The Prior Art shown by Applicant on page 1 and 2 disclose most of the claimed invention except for the peep holes are formed in both the upper and lower walls of the female housing. Wu introduces peep holes (openings) 631 and 632 that are formed in both the upper and lower walls of the female housing 6 to allow a user more convenient visually observe the terminal members (see Abstract, last two lines and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and for the same reason **to include** the peep holes formed in both the upper and lower walls of the female housing in **The Prior Art structure included by Applicant.**

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Prior Art in view of Oda et al. (5108309) as applied to claim 1 above, and further in view of Shimoji et al. (5960138)

The Prior Art shown by Applicant on page 1 and 2 disclose most of the claimed invention but silent about how two connectors engaged. Shimoji et al. introduce a latching mechanism for keeping connectors 3 and 7 in a stable engagement with each other, the mechanism being composed of an elastic lock arm 8 that protrudes from each of opposite outer sides of the female housing 7, an outer detent 11 protruding sideways from each lock arm 8, and pawls 4 each formed in an inner side surface of the cavity (inner space in the housing 3) in the male housing 3, so that detent 11 and pawl 4 catching one another to constitute the latching mechanism, when the female housing 7

and the fore portion of each lock arm 8 are received in the cavity (inner space in the housing 3); the latching mechanism **engages and locks** two housings together **to provide a reliable mechanical and electrical connection** between them. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and for the same reason **to modify** both housings in **The Prior Art included by Applicant** by **utilizing** a latching mechanism of Shimoji et al.

Allowable Subject Matter

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The Prior Art does not disclose applicant's "connector composed of a male and female connectors " particularly characterized by "**a pair of guards** ... protrude from each of the opposite sides of female housing so that the lock arm is disposed in between such **guards**, wherein the guards will come into contact with the fore face of the male housing, thereby assisting a worker or user to visually confirm neat engagement of female housing with the male housing"

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ko (6431922) teaches a hole 110/190, Garver (3573716), Grois et al. (6315590).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larisa Z Tsukerman whose telephone number is (571)-272-2015. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on (571)-272-2800 ex. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT
June 9, 2004

Theresa
THO D.TA
PRIMARY EXAMINER